

6-19-92
12.3.806

MOBIL

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED:06/19/92

***** I. PRODUCT IDENTIFICATION *****
MOBILTEMP 78

SUPPLIER: MOBIL OIL CORP. 24-HOUR EMERGENCY (CALL COLLECT): (609) 737-4411
CHEMICAL NAMES AND SYNONYMS: CHEMTREC: (800) 424-9300
PET. HYDROCARBONS AND ADDITIVES
USE OR DESCRIPTION: HIGH TEMPERATURE GREASE PRODUCT AND MSDS INFORMATION: (800) 662-4525

***** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES *****

APPEARANCE: GRAY-BLACK GREASE ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 2448.0 AT 40 C, CS: 460.0
VISCOSITY AT 210 F, SUS: 155.0 AT 100 C, CS: 32.0
FLASH POINT F(C): > 400(204) (ESTIMATED (OIL COC))
MELTING POINT F(C): NA POUR POINT F(C): NA
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.9 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1
NOTE: MOST PHYSICAL PROPERTIES FOR OIL COMPONENT.
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

***** III. POTENTIALLY HAZARDOUS INGREDIENTS *****

	WT PCT (APPROX)	EXPOSURE LIMITS MG/M3 - PPM	SOURCES (AND NOTES)
MOLYBDENUM (IV) SULFIDE (1317-33-5)	1	10 10 10	A-(AS MO-INSL) M-(AS MO-INSL) O-(AS MO-INSL)
GLYCERIN (56-81-5)	1	10 10 10 5	A-TOTAL DUST M O-TOTAL DUST O-RESP. FRACT.

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

SOURCES: A=ACGIH-TLV, A*=SUGGESTED-TLV, M=MOBIL, O=OSHA, S=SUPPLIER
NOTE: LIMITS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

***** IV. HEALTH HAZARD DATA *****

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---
EFFECTS OF OVEREXPOSURE: NOT EXPECTED TO BE A PROBLEM.



***** V. EMERGENCY AND FIRST AID PROCEDURES *****

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: FLUSH THOROUGHLY WITH WATER. IF IRRITATION PERSISTS, CALL A PHYSICIAN.

SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER. HIGH PRESSURE ACCIDENTAL INJECTION THROUGH THE SKIN REQUIRES IMMEDIATE MEDICAL ATTENTION FOR POSSIBLE INCISION, IRRIGATION AND/OR DEBRIDEMENT.

INHALATION: NOT EXPECTED TO BE A PROBLEM.

INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER (PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

***** VI. FIRE AND EXPLOSION HAZARD DATA *****

FLASH POINT F(C): > 400(204) (ESTIMATED (OIL COC))

FLAMMABLE LIMITS. LEL: NE UEL: NE

EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING.

USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. FOR FIRES IN ENCLOSED AREAS, FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS, SEWERS, OR DRINKING WATER SUPPLY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE.

NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

***** VII. REACTIVITY DATA *****

STABILITY (THERMAL, LIGHT, ETC.): STABLE

CONDITIONS TO AVOID: EXTREME HEAT.

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS: SILICON DIOXIDE. NITROGEN OXIDES. SULFUR OXIDES. CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

***** VIII. SPILL OR LEAK PROCEDURE *****

ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER (800) 424-8802. IN CASE OF ACCIDENT OR ROAD SPILL NOTIFY CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: ADSORB ON FIRE RETARDANT TREATED SAWDUST, DIATOMACEOUS EARTH, ETC. SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

WASTE MANAGEMENT: PRODUCT IS SUITABLE FOR BURNING IN AN ENCLOSED, CONTROLLED BURNER FOR FUEL VALUE OR DISPOSAL BY SUPERVISED INCINERATION. SUCH BURNING MAY BE LIMITED PURSUANT TO THE RESOURCE CONSERVATION AND RECOVERY ACT. IN ADDITION, THE PRODUCT IS SUITABLE FOR PROCESSING BY AN APPROVED RECYCLING FACILITY OR CAN BE DISPOSED OF AT ANY GOVERNMENT APPROVED WASTE DISPOSAL FACILITY. USE OF THESE METHODS IS SUBJECT TO USER COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS AND CONSIDERATION OF PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

***** IX. SPECIAL PROTECTION INFORMATION *****

EYE PROTECTION: NO SPECIAL EQUIPMENT REQUIRED.
 SKIN PROTECTION: NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL
 HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.
 RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY
 CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.
 VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE
 AND WITH ADEQUATE VENTILATION.

***** X. SPECIAL PRECAUTIONS *****
 NO SPECIAL PRECAUTIONS REQUIRED.

***** XI. TOXICOLOGICAL DATA *****

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): LD50: > 5 G/KG 0/10 RATS DIED AT THIS DOSAGE
 LEVEL. CONSIDERED TO BE NO MORE THAN SLIGHTLY TOXIC BASED ON
 SINGLE DOSE LEVEL TESTING AT 5 G/KG.
 DERMAL TOXICITY (RABBITS): LD50: > 2 G/KG 0/10 RABBITS DIED AT THIS
 DOSAGE LEVEL. CONSIDERED TO BE NO MORE THAN SLIGHTLY TOXIC BASED
 ON SINGLE DOSE LEVEL TESTING AT 2 G/KG.
 INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF
 MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY
 CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF
 THIS PRODUCT.
 EYE IRRITATION (RABBITS): CAUSED NO SIGNIFICANT IRRITATION TO RABBITS.
 EYE IRRITATION SCORES: 0 AT 24 HOURS, 0 AT 48 HOURS, 0 AT 72 HOURS
 SKIN IRRITATION (RABBITS): NOT IRRITATING TO RABBITS AFTER 4 HOUR
 CLOSED PATCH CONTACT.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

SEVERELY SOLVENT REFINED AND SEVERELY HYDROTREATED MINERAL BASE OILS
 HAVE BEEN TESTED AT MOBIL ENVIRONMENTAL AND HEALTH SCIENCES
 LABORATORY BY DERMAL APPLICATION TO RATS 5 DAYS/WEEK FOR 90 DAYS AT
 DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL
 INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS INCLUDING MICROSCOPIC
 EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY
 FLUIDS, SHOWED NO ADVERSE EFFECTS. DERMAL APPLICATION OF THIS
 PRODUCT AT DOSES UP TO 2000 MG/KG/DAY FOR 13 WEEKS TO MALE AND
 FEMALE RATS PRODUCED MINIMAL SKIN IRRITATION, AND VIRTUALLY NO
 SYSTEMIC TOXICITY.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR
 SEVERELY HYDROTREATED. CHRONIC MOUSE SKIN PAINTING STUDIES OF
 SIMILAR OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS. THIS
 MATERIAL IS NOT A SENSITIZER UNDER THE CONDITIONS OF THE
 BUHLER(GUINEA PIG) PATCH TEST.

***** XII. REGULATORY INFORMATION *****

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS REGISTERED IN ACCORDANCE
 WITH TSCA.

DOT:

SHIPPING NAME: NOT APPLICABLE
 HAZARD CLASS: NOT APPLICABLE

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE
 WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D), NOR IS IT FORMULATED TO CONTAIN MATERIALS WHICH ARE LISTED HAZARDOUS WASTES. IT DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY AND IS NOT FORMULATED WITH CONTAMINANTS AS DETERMINED BY THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP). HOWEVER, USED PRODUCT MAY BE REGULATED.

THIS PRODUCT HAS BEEN AUTHORIZED BY USDA FOR USE UNDER THE FOLLOWING CATEGORY: H2 - LUBRICANTS WITH NO FOOD CONTACT

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III: THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312 - FORMERLY 302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS NO CHEMICALS REPORTABLE UNDER SARA (313) TOXIC RELEASE PROGRAM.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
1,2,3-PROPANETRIOL	56-81-5	1, 2, 7, 8, 11, 17
ZINC (ELEMENTAL ANALYSIS) (.03%)	7440-66-6	15
ZINC, BIS(DIPENTYLCARBAMODITHIOATO-S,S)-, (T-4)- (.25%)	15337-18-5	15
QUATERNARY AMMONIUM COMPOUNDS, BIS(HYDROGENATED TALLOW ALKYL)DIMETHYLCHLORIDES, REACTION PRODUCTS WITH ATTAPULGITE (6.19%)	68953-58-2	15

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 7 = NFPA 49,
8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK, 11 = IL RTK, 12 = MA RTK,
13 = MN RTK, 14 = NJ RTK, 15 = MI 293, 16 = FL RTK, 17 = PA RTK,
18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

***** XIII. INGREDIENTS *****

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS THE FOLLOWING BASE OILS:	> 90.00	
BASE OILS:		
LUBRICATING OILS (PETROLEUM), C>25		72623-83-7
HYDROTREATED BRIGHT STOCK-BASED		
DISTILLATES (PETROLEUM), SOLVENT		64742-65-0
DEWAXED HEAVY PARAFFINIC		

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QUATERNARY AMMONIUM COMPOUNDS, BIS(HYDROGENATED TALLOW ALKYL) DIMETHYL, SALTS WITH BENTONITE	< 7.00	68953-58-2
1,2,3-PROPANETRIOL	1.25	56-81-5
MOLYBDENUM SULFIDE	< 1.00	1317-33-5
ZINC, BIS (DIPENTYLCARBAMODITHIOATO- S,S')-, (T-4)-	0.25	15337-18-5
PHOSPHORIC ACID, TRISODIUM SALT	0.16	7601-54-9

***** APPENDIX *****
FOR MOBIL USE ONLY: MHC: 1 1 NA 0 0, MPPEC: A, PPEC: A, US89-355
APPROVE CCODE:7 11/27/90 REQ: US - MARKETING

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT
WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR
PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT
ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL
WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF
MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE
USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A
RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING
LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING
PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWES ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265